

ORIGINAL



0000073454

RECEIVED

2802

TO: Docket Control

Arizona Corporation Commission 2007 MAY 29 A 9:18

1200 W. Washington Street

Phoenix, AZ 85007

AZ CORP COMMISSION
DOCKET CONTROL

FROM: Robert Annan
Annan Group

Arizona Corporation Commission
DOCKETED

MAY 29 2007

DATE: May 25, 2007

SUBJECT: Generic Investigation Into Electric Resource Planning

Responses to Staffs Questions dated April 26, 2007

Docket No. E-00000E-05-0431

DOCKETED BY	ne
-------------	----

The Annan Group appreciates the opportunity to participate in the planned workshops for integrated resource planning. My responses to the staff questions dated April 26, 2007 are broken down into five parts consistent with breakdown provided in the Staff letter dated April 26, 2007.

Part 1. Objectives of Resource Planning including the use of any developed plan.

The objective of the IRP plan process should be to develop a set of prudent practices that could be supported with on-going policy decision dockets. These practices would focus on those critical measures needed to transform the present and planned electrical grid infrastructure-- one that emphasizes vertically integrated, large remotely located and ageing carbon based centralized generation, long distance transmission to whole regions and a distribution system serving diverse loads and dispersed users-- to one that centers on the customer. A customer centered infrastructure not only provides reliable, affordable electricity but is sensitive to customer preference for clean resources with an emphasis on security and diversity of supply. The Renewable Energy Standard and Tariff (REST) rules provide the needed start in meeting this objective and would qualify as an IRP baseline prudent practice. A customer centered infrastructure would also provide electricity customer with tools to assist them in making decisions weighted to conserving energy as well as emphasizing distributed generation.

The concept that the IRP plan resulting from the process forms the basis for findings of "prudence in subsequent rate cases" makes sense. Commissioner Kristin Mayes, during her January 2007, swearing in made the point that the Arizona Corporation Commission's best decisions are those that look ahead and impact future actions. The IRP plan process fits that kind of forward looking decision making.

Parts 2 and 3. The Resource Planning Process: The scope, planning horizon and load forecasting methodology.

The resource planning process would require the participation of all electric utilities and cover generation, transmission, distribution, and end use. It would begin with projecting an electricity infrastructure to serve a forecasted demand in 2025, the final date of the REST rule. One consistent methodology would aid

this forecasting task. However, an overview of forecasting methodologies is in order to determine if one methodology is workable. In addition the forecasting demand the IRP process would forecast energy prices using levelized energy cost methodologies over the same period and in doing so consider the cost impact of fossil resource prices, climate change, and tightening water supplies.

Part 4. Demand Reductions and the role of demand side management: Consistent with the customer centered infrastructure objective, the IRP process builds on the DSM programs underway at utilities and adopts a set of prudent practices dealing with pricing structures, incentives and state of the art measurements both to encourage and reward customer decisions while penalizing poor decisions. Net metering without caps and limitations, and smart metering are included in the prudent practices demand side management framework

Part 5. Supply Side Planning: portfolio options to meet increased load demands, risk management strategies, fuel diversity, and expanded use solar integrated with coal, the REST, carbon taxes, cost modeling, non utility generation. Improved peak power requirements planning must be a high priority. The current reliance on short-term market supply contracts and old inefficient gas generation to meet peak requirements indicate that better load forecasting for peak periods together with an assessment of resources to meet this load requirement is long overdue. Distributed generation becomes particularly important prudent practice when planning for peak requirements in a customer centered infrastructure.

New microgrid interconnect architecture with storage, packaged power management system employing new topologies and control, and real-time communication features offer new levels of improved reliability, efficiency and security for electricity customers. Microgrids also offer the benefit of reduced transmission and distribution investment. These new electricity concepts built on experience from distributed generation should be investigated for resource plans going out more than five years.

The electricity infrastructure envisioned calls for expanded use of utility-scale solar electric generation. The rate case decision resulting in this IRP workshop also calls for a study regarding integration of coal and solar resources. This request stems from Tucson Electric's solar/coal Springerville project. Such a study should be made part of the IRP deliberations.

Finally, supply side planning to the year 2025 should be based on an electrical infrastructure that is capable of incorporating the latest technology but also flexible and adaptable for future changes. As such the plan should be reviewed ever four years. Out year planning will involve technology risks. Accordingly, it is necessary that the IRP process identify a research and development methodology that can operate to reduce such risks.